(b) Each location, such as a locker or compartment, that carries any fire extinguishing, signaling, or other life saving equipment, must be so marked.

(c) Stowage provisions for required emergency equipment must be conspicuously marked to identify the contents and facilitate removal of the equipment.

(d) Each liferaft must have obviously marked operating instructions.

(e) Approved survival equipment must be marked for identification and method of operation.

§ 29.1565 Tail rotor.

Each tail rotor must be marked so that its disc is conspicuous under normal daylight ground conditions.

[Amdt. 29–3, 33 FR 971, Jan. 26, 1968]

ROTORCRAFT FLIGHT MANUAL

§ 29.1581 General.

(a) *Furnishing information.* A Rotorcraft Flight Manual must be furnished with each rotorcraft, and it must contain the following:

(1) Information required by §§ 29.1583 through 29.1589.

(2) Other information that is necessary for safe operation because of design, operating, or handling characteristics.

(b) *Approved information.* Each part of the manual listed in §§ 29.1583 through 29.1589 that is appropriate to the rotorcraft, must be furnished, verified, and approved, and must be segregated, indentified, and clearly distinguished from each unapproved part of that manual.

(c) [Reserved]

(d) *Table of contents.* Each Rotorcraft Flight Manual must include a table of contents if the complexity of the manual indicates a need for it.

(Secs. 313(a), 601, 603, 604, and 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1423, 1424, and 1425); and sec. 6(c), Dept. of Transportation Act (49 U.S.C. 1655(c)))

[Amdt. 29–15, 43 FR 2327, Jan. 16, 1978]

§ 29.1583 Operating limitations.

(a) *Airspeed and rotor limitations.* Information necessary for the marking of airspeed and rotor limitations on or near their respective indicators must be furnished. The significance of each limitation and of the color coding must be explained.

(b) *Powerplant limitations.* The following information must be furnished:

(1) Limitations required by § 29.1521.

(2) Explanation of the limitations, when appropriate.

(3) Information necessary for marking the instruments required by §§ 29.1549 through 29.1553.

(c) *Weight and loading distribution.* The weight and center of gravity limits required by §§ 29.25 and 29.27, respectively, must be furnished. If the variety of possible loading conditions warrants, instructions must be included to allow ready observance of the limitations.

(d) *Flight crew.* When a flight crew of more than one is required, the number and functions of the minimum flight crew determined under § 29.1523 must be furnished.

(e) *Kinds of operation.* Each kind of operation for which the rotorcraft and its equipment installations are approved must be listed.

(f) *Limiting heights.* Enough information must be furnished to allow compliance with § 29.1517.

(g) *Maximum allowable wind.* For Category A rotorcraft, the maximum allowable wind for safe operation near the ground must be furnished.

(h) *Altitude.* The altitude established under § 29.1527 and an explanation of the limiting factors must be furnished.

(i) *Ambient temperature.* Maximum and minimum ambient temperature limitations must be furnished.

(Secs. 313(a), 601, 603, 604, and 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1423, 1424, and 1425); and sec. 6(c), Dept. of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29–3, 33 FR 971, Jan. 26, 1968; Amdt. 29–15, 43 FR 2327, Jan. 16, 1978; Amdt. 29–17, 43 FR 50602, Oct. 30, 1978; Amdt. 29–24, 49 FR 44440, Nov. 6, 1984]

§ 29.1585 Operating procedures.

(a) The parts of the manual containing operating procedures must have information concerning any normal and emergency procedures, and other information necessary for safe

operation, including the applicable procedures, such as those involving minimum speeds, to be followed if an engine fails.

(b) For multiengine rotorcraft, information identifying each operating condition in which the fuel system independence prescribed in §29.953 is necessary for safety must be furnished, together with instructions for placing the fuel system in a configuration used to show compliance with that section.

(c) For helicopters for which a V_{NE} (power-off) is established under §29.1505(c), information must be furnished to explain the V_{NE} (power-off) and the procedures for reducing airspeed to not more than the V_{NE} (power-off) following failure of all engines.

(d) For each rotorcraft showing compliance with §29.1353 (c)(6)(ii) or (c)(6)(iii), the operating procedures for disconnecting the battery from its charging source must be furnished.

(e) If the unusable fuel supply in any tank exceeds 5 percent of the tank capacity, or 1 gallon, whichever is greater, information must be furnished which indicates that when the fuel quantity indicator reads ''zero'' in level flight, any fuel remaining in the fuel tank cannot be used safely in flight.

(f) Information on the total quantity of usable fuel for each fuel tank must be furnished.

(g) For Category B rotorcraft, the airspeeds and corresponding rotor speeds for minimum rate of descent and best glide angle as prescribed in §29.71 must be provided.

(Secs. 313(a), 601, 603, 604, and 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1423, 1424, and 1425); and sec. 6(c), Dept. of Transportation Act (49 U.S.C. 1655(c)))

[Amdt. 29–2, 32 FR 6914, May 5, 1967, as amended by Amdt. 29–15, 43 FR 2328, Jan. 16, 1978; Amdt. 29–17, 43 FR 50602, Oct. 30, 1978; Amdt. 29–24, 49 FR 44440, Nov. 6, 1984]

§29.1587 Performance information.

Flight manual performance information which exceeds any operating limitation may be shown only to the extent necessary for presentation clarity or to determine the effects of approved optional equipment or procedures. When data beyond operating limits are shown, the limits must be clearly indicated. The following must be provided:

(a) *Category A.* For each category A rotorcraft, the Rotorcraft Flight Manual must contain a summary of the performance data, including data necessary for the application of any operating rule of this chapter, together with descriptions of the conditions, such as airspeeds, under which this data was determined, and must contain—

(1) The indicated airspeeds corresponding with those determined for takeoff, and the procedures to be followed if the critical engine fails during takeoff;

(2) The airspeed calibrations;

(3) The techniques, associated airspeeds, and rates of descent for autorotative landings;

(4) The rejected takeoff distance determined under §29.62 and the takeoff distance determined under §29.61;

(5) The landing data determined under §29.81 and §29.85;

(6) The steady gradient of climb for each weight, altitude, and temperature for which takeoff data are to be scheduled, along the takeoff path determined in the flight conditions required in §29.67(a)(1) and (a)(2):

(i) In the flight conditions required in §29.67(a)(1) between the end of the takeoff distance and the point at which the rotorcraft is 200 feet above the takeoff surface (or 200 feet above the lowest point of the takeoff profile for elevated heliports);

(ii) In the flight conditions required in §29.67(a)(2) between the points at which the rotorcraft is 200 and 1000 feet above the takeoff surface (or 200 and 1000 feet above the lowest point of the takeoff profile for elevated heliports); and

(7) Out-of-ground effect hover performance determined under §29.49 and the maximum safe wind demonstrated under the ambient conditions for data presented.

(b) *Category B.* For each category B rotorcraft, the Rotorcraft Flight Manual must contain—

(1) The takeoff distance and the climbout speed together with the pertinent information defining the flight